

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 5. (Cancelled)

6. (Currently Amended) A method for transferring software code from a control unit to a field device of process automation technology, comprising the steps of:

integrating the software code in a software module, which represents the software driver of the field device and which encapsulates data and functions of the field device and requires, as runtime environment, an operating program for field devices, wherein the software module is provided in the form of a DTM (device type manager) according to FDT-Specifications, and the operating program serves as an FDT-frame application;

establishing a communication connection with the operating program and the field device, resulting in a transfer of the software code via the communication connection to the field device; and

executing the software code with the field device by using a function-block shell installed in the field device and representing an application program interface between ~~the~~ a fieldbus stack and ~~the~~ function-block applications, wherein the authenticity of said software module is checked by the function-block shell.

7. (Cancelled)

8. (Previously presented) The method as claimed in claim 6, wherein:

the software code corresponds to a function block.

9. (Previously presented) The method as claimed in claim 8, wherein:
said function block is provided in the form of a function block according to Foundation® Fieldbus Specifications.

10. (Previously presented) The method as claimed in claim 8, wherein:
said function block includes e.g. algorithms, parameters or methods of the field device.

11. (Cancelled).

12. (Previously presented) The method as claimed in claim 6, wherein:
the parameters of the function-block shell which is composed of a function-block user interface and the function-block software code are changed via the function-block user interface .

13. (Currently Amended) A method for transferring software code from a control unit to a field device of process automation technology, comprising the steps of:

integrating the software code in software module, which represents the software driver of the field device and which encapsulates data and functions of the field device and requires, as runtime environment , and operating program for field devices, wherein the software module is provided in the form of a DTM (device type manager) according to FDT-Specifications, and the operating program serves as an FDT-frame application;

establishing a communication connection with the operating program and the field device, resulting in a transfer of the software code via the communication

Ser. No. 10/549,909

connection to the field device, wherein the software code corresponds to a function block; and

utilizing a ~~security mechanism~~ function block shell, installed in the field device and representing an application program interface between a fieldbus stack and function-block applications, to prevent a virus attack on the field device during transmission of the function block into a the field device by checking the authenticity of said software module.